

Robust Optical Edge for a Starshade Petal, Phase I

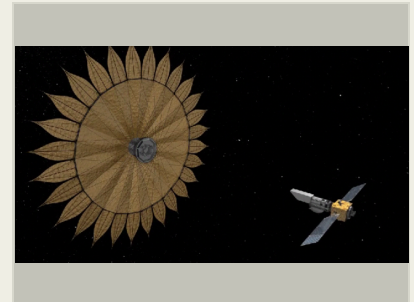
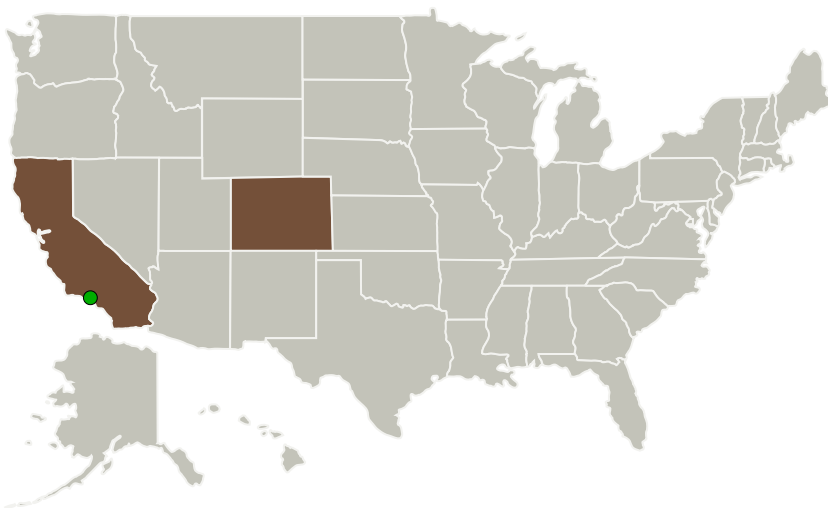
Completed Technology Project (2016 - 2016)



Project Introduction

The proposed Phase I program will design and develop an optical edge that can be integrated to a petal structure and meet the precision, ground handling, packaging, launch and on-orbit environmental requirements. There will be an emphasis on optimizing the integration of a micro-thin metal alloy to a low CTE composite substrate. The Ph1 program will include prototyping and testing the optical edge architecture. In addition, deployable optical close-outs at the root of the petal will also be designed.


Primary U.S. Work Locations and Key Partners



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Organizations Performing Work	Role	Type	Location
Tendeg LLC	Lead Organization	Industry Small Disadvantaged Business (SDB)	Louisville, Colorado
 Jet Propulsion Laboratory (JPL)	Supporting Organization	NASA Center	Pasadena, California

Primary U.S. Work Locations

California	Colorado
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Project Transitions



June 2016: Project Start

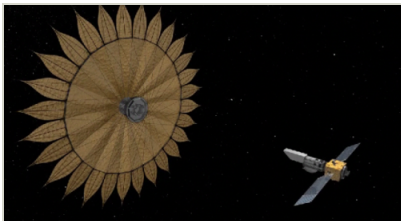


December 2016: Closed out

Closeout Documentation:

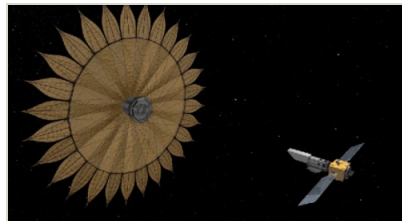
- Final Summary Chart(<https://techport.nasa.gov/file/139611>)

Images



Briefing Chart Image

Robust Optical Edge for a Starshade Petal, Phase I
(<https://techport.nasa.gov/image/130862>)



Final Summary Chart Image

Robust Optical Edge for a Starshade Petal, Phase I Project Image
(<https://techport.nasa.gov/image/125980>)

Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Organization:

Tendeg LLC

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

Project Management

Program Director:

Jason L Kessler

Program Manager:

Carlos Torrez

Principal Investigator:

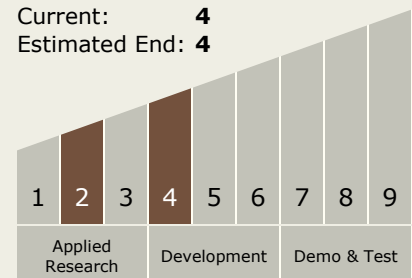
Gregg Freebury

Technology Maturity (TRL)

Start: 2

Current: 4

Estimated End: 4



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Technology Areas

Primary:

- TX08 Sensors and Instruments
 - └ TX08.1 Remote Sensing Instruments/Sensors
 - └ TX08.1.3 Optical Components

Target Destinations

The Sun, Earth, The Moon, Mars, Others Inside the Solar System, Outside the Solar System